REMARKS

A principal purpose of this Preliminary Amendment is to remove the multiply dependent claims and avoid the fee associated therewith, applicant reserving the right to reintroduce claims to canceled combined subject matter.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version With Markings To Show Changes Made**".

Respectfully submitted,

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Version With Markings To Show Changes Made

In the Claims

The claims have been amended as follows:

2. (Amended) ~~Process~~ A process according to claim 1, wherein the feedstock is a steam-cracking effluent that contains for the most part hydrocarbons with four to five carbon atoms per molecule ~~and preferably a majority of hydrocarbons with four carbon atoms~~.

3. (Amended) ~~Process~~ A process according to ~~one of claims 1 and 2~~ claim 1, wherein the butadiene content in the feedstock is at least equal to 20% by weight ~~and preferably equal to 50% by weight~~.

4. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 3~~ claim 1, wherein the feedstock contains at most 20% by weight of acetylene compounds~~, advantageously at most 5% and preferably at most 2.5%~~ .

5. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 4~~ claim 1, wherein the draw-off flow rate is at most equal to twice the ~~one~~ flow rate of the feedstock~~, advantageously at most equal to one and one-half times the flow rate of the feedstock and preferably approximately equal to the one of the feedstock that is~~ introduced ~~in~~ into the distillation zone.

6. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 5~~ claim 1, wherein the feedstock is introduced at a level that ~~essentially~~ corresponds to substantially the center of the distillation column; the lateral draw-off level is located below said center of the column at a height that corresponds to fewer than five theoretical plates from said center; and the hydrogenation effluent is recycled above the center of the column at a level that corresponds to ~~at most the~~ a height ~~of~~ within the first five theoretical plates from the top of the column.

7. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 6, wherein~~ claim 1, conducting the process so that the ratio of the acetylene compounds/butadienes concentrations is the highest at the level of the lateral draw-off ~~is essentially the highest~~.

8. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 7~~ claim 1, wherein the operating conditions of the distillation zone are as follows:

Number of theoretical plates: ~~40, preferably~~ 35-45

Absolute pressure: 4-10 bar, ~~preferably 5 bar~~

Top temperature: ~~45°C, preferably~~ 30°C to 50°C

Bottom temperature: ~~95%C, preferably~~ 90°C to 150°C

9. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 8~~ claim 1, wherein the operating conditions in the hydrogenation zone are as follows:

Absolute pressure: 2 to 70 bar, ~~preferably 5 to 15 bar~~

Temperature: 30 to 60°C, ~~preferably 35°C to 45°C~~

Volumetric flow rate 3 to 10 h^{-1}, ~~preferably 4 to 8 h^{-1}~~

Ratio of H_2/acetylene compounds (mol/mol) = 0.5 to 3,

~~preferably 1.0 to 1.1~~

Noble metal catalyst of group VIII, ~~preferably palladium;~~

0.01 to 1% by weight stabilized by at least one metal of the group formed by Au, Ag, Sn.

10. (Amended) ~~Process~~ A process according to ~~one of claims 1 to 4, wherein~~ claim 1, further comprising adjusting the temperature of the hydrogenation effluent ~~is controlled~~ upstream from the recycling level in the rectification zone of the distillation column.

Claims 11-16 have been added.